

IN THE CLAIMS

Please amend the claims as follows, substituting any amended claim(s) for the corresponding pending claim(s):

- 1 1. (Original) A method for transferring call control to a backup call server, comprising:
2 monitoring a primary call server to determine an active or inactive state of said primary call
3 server; and
4 upon receipt of an inactive state for said primary call server, forwarding signaling messages from
5 a signaling gateway to a backup call server wherein each signaling gateway may have a different backup
6 call server.
- 1 2. (Original) The method of claim 1 wherein the step of forwarding signaling messages further
2 includes encapsulating the signaling message in a data packet with the destination address of the backup
3 server.
- 1 3. (Original) The method of claim 1 wherein the step of forwarding signaling messages further
2 includes mapping a new destination address from the signaling gateway to the backup call server.
- 1 4. (Original) The method of claim 1 wherein a plurality of signaling gateways each distribute
2 signaling messages destined for the primary call server to a plurality of backup call servers.
- 1 5. (Original) The method of claim 1 further including determining the primary call server has
2 transitioned to the active state and subsequently thereto, forwarding signaling to the primary call server.
- 1 6. (Original) The method of claim 5 wherein the primary call server is provisioned to process all
2 signaling messages it would have processed prior to transitioning to the inactive state.
- 1 7. (Original) The method of claim 5 wherein the primary call server is provisioned to process
2 different signaling messages from what it would have processed prior to transitioning to the inactive state.
- 1 8. (Original) The method of claim 1 wherein the primary call server and backup call server each
2 comprise one of an MSC, a G-MSC, or an HLR.
- 1 9. (Original) The method of claim 1 wherein the primary call server also functions as a backup call
2 server and further wherein the backup call server also functions as a primary call server.

1 10. (Original) A method for transferring call control to a backup call server, comprising:
2 transmitting call setup signals between a calling party mobile station and a BSC;
3 transmitting call setup signals between the BSC and an originating MSC;
4 transmitting call setup signals between the originating MSC and a gateway-MSC (G-MSC) by
5 way of a first signaling gateway;
6 transmitting call setup signals from the G-MSC to an HLR, by way of a second signaling
7 gateway, to determine a destination MSC;
8 transmitting destination MSC information from the HLR to the G-MSC by way of the second
9 signaling gateway;
10 upon determining that the destination MSC has failed, routing the call setup signals received from
11 the G-MSC to a backup MSC and establishing a connection between the backup MSC and the originating
12 MSC;
13 upon determining that the G-MSC has failed, routing the call setup signals received for the G-
14 MSC to a backup G-MSC and establishing a connection between the backup G-MSC and the originating
15 MSC; and
16 establishing a call connection between the calling party mobile station and a called party mobile
17 station.

1 11. (Original) The method of claim 10 wherein the step of routing the call setup signals from the G-
2 MSC to the backup MSC further comprises routing a first portion of the call setup signals from the G-
3 MSC to a first backup MSC and a second portion of the call setup signals from the G-MSC to a second
4 backup MSC.

1 12. (Original) The method of claim 10 wherein the step of routing the call setup signals from the G-
2 MSC to the backup MSC further comprises routing a first portion of the call setup signals to a first
3 backup G-MSC and a second portion of the call setup signals to a second backup G-MSC.

1 13. (Currently Amended) A cellular network, comprising:
2 a G-MSC for establishing call connections between originating MSCs and destination MSCs;
3 ~~an HLR~~ a HLR for providing location information to the G-MSC as a part of call setup;
4 at least one signaling gateway coupled between G-MSC and the HLR;
5 wherein the HLR determines a primary MSC to serve as a destination MSC for a call being setup
6 based upon a called party mobile station location;
7 wherein the HLR transmits call signaling messages to the at least one signaling gateway coupled
8 between the HLR and the G-MSC; and
9 wherein the at least one signaling gateway redirects the call signaling messages to a backup G-
10 MSC upon detecting that the G-MSC is in an inactive state.

1 14. (Original) A cellular network, comprising:
2 a G-MSC for establishing call connections between originating MSCs and destination MSCs;
3 a HLR for providing location information to the G-MSC as a part of call setup;
4 a first signaling gateway within a first plurality of signaling gateways coupled between each of a
5 plurality of MSCs and the G-MSC;
6 a second signaling gateway coupled between the G-MSC and the HLR;
7 wherein the HLR reports a destination MSC for a call being setup based upon a called party
8 mobile station location record maintained in the HLR;
9 wherein the HLR transmits call signaling messages to the second gateway coupled between the
10 HLR and the G-MSC; and
11 wherein the second signaling gateway redirects the call signaling messages to a first backup G-
12 MSC upon detecting that the G-MSC is in an inactive state; and
13 wherein the first signaling gateway redirects the call signaling messages to a second backup G-
14 MSC upon detecting that the G-MSC is in an inactive state.

1 15. (Original) The cellular network of claim 14 wherein the second gateway coupled between G-
2 MSC and the HLR comprises one of a plurality of signaling gateways.

1 16. (Original) The cellular network of claim 14 further comprising at least one signaling gateway
2 coupled between the G-MSC and an originating MSC.

1 17. (Original) The cellular network of claim 14 further comprising at least one signaling gateway
2 coupled between the G-MSC and a destination MSC.

1 18. (Original) The cellular network of claim 17 wherein at least one of the first and second backup G-
2 MSC also operates as a primary G-MSC.

1 19. (Original) A signaling gateway for a cellular network coupled to communicate with a destination
2 switching element and to at least one home location register, comprising:

3 a processor;

4 a memory for storing computer instructions that define the operational logic of the signaling
5 gateway, wherein the computer instructions include logic for:

6 receiving call signaling messages from one of the HLR or an initiating MSC;

7 determining whether the destination switching element is in an inactive state;

8 if the destination switching element is in an inactive state, determining a first backup
9 switching element; and

10 transparently forwarding the call signaling messages to the backup switching element.

1 20. (Currently Amended) The signaling gateway of ~~claim 14~~ claim 19 further including determining a
2 second backup switching element and transparently forwarding a first group of call signaling messages to
3 the first backup switching element and transparently forwarding a second group of call signaling
4 messages to the second backup switching element.